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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/758,357 | 01/15/2004 | Shalaby W. Shalaby | SHA-49 | 5302 |

29698 7590 11/22/2006

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| EXAMINER |
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ROGERS, JAMES WILLIAM

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| ART UNIT | PAPER NUMBER |
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1618

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/758,357 | SHALABY, SHALABY W. | |
| | Examiner | Art Unit | |
| | James W. Rogers, Ph.D. | 1618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendments to the claims filed 10/13/2006 have been entered.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,5,13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Sawhney (US 6,818,018), for the reasons set forth in the office action mailed 07/13/2006.

Applicant's arguments filed 10/13/2006 have been fully considered but they are not persuasive.

Applicants assert that Sawhney does not anticipate the present non-aqueous liquid mixture because the present liquid succinic anhydride-bearing polyether is itself novel.

The relevance of this assertion is unclear. Clearly Sawhney teaches that the polymer can comprise various hydrophobic polyethers which can then comprise either a nucleophile (including hydrazine and diamines) or/and an electrophile (including succinic anhydrides such as malaic anhydride), the electrophilic groups and nucleophilic groups being reactive towards one another and forming a cross-linked network. The liquid succinic anhydride-bearing polyether is not novel at least as claimed in comparison to the prior art which already teaches the use of a succinic anhydride-bearing polyether.

Applicants further assert that the water soluble crosslinking agents include a water soluble polymeric backbone and a polymerizable region and by virtue of their water solubility all of the water soluble crosslinking agents and the water soluble crosslinkable polymers disclosed by Sawhney are aqueous.

The relevance of this assertion is unclear. The terms aqueous and water soluble are not the same, aqueous means that the solute is dissolved in water while water soluble only means that the molecule is soluble in water, just because Sawhney discloses that the polymers are water soluble does not inherently mean that they are in aqueous solution. Contradictory to this, it is taught within Sawhney that the hydrogel-forming precursor solution only forms hydrogels in-situ after it is applied to tissue, therefore since the precursor is not a hydrogel, it is inherent that it contains no water. A **Hydrogel** is a network of polymer chains that are water-soluble, sometimes found as a colloidal gel in which water is the dispersion medium.

Applicants finally assert that only through hindsight by picking through the lengthy disclosure did the examiner find the same functional groups as applicants claimed invention that may be used to crosslink the polymers.

The relevance of this assertion is unclear. Clearly Sawhney teaches that the polymers can be comprised of several nucleophilic groups and electrophilic groups including the functional groups currently claimed by applicants. Therefore the skilled artisan could easily produce applicants currently claimed invention since Sawhney already teaches every detail of the currently claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,5 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawhney (US 6,818,018) in view of Trieu (US 20020026244 A1), for the reasons set forth in the office action mailed 07/13/2006.

Applicant's arguments filed 10/13/2006 have been fully considered but they are not persuasive.

Applicant asserts that since the Sawhney reference does not disclose or render obvious the present claimed invention as discussed in their arguments above it should be withdrawn.

From the above arguments Sawhney does disclose and render obvious applicants presently claimed invention, therefore the rejection stands.

Conclusion

No claims are allowed at this time.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the


Art Unit: 1618

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Rogers, Ph.D. whose telephone number is (571) 272-7838. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on (571) 271-0616. The fax phone number for the organization where this application or proceeding is assigned is 572-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "mhartley", followed by a long horizontal line that extends to the right and then curves downwards.

MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER